

INTERNATIONAL SEARCH REPORT

In Application No
PCT/GB2004/002583

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A01H5/00 C12N15/82 C12N15/29 C07K14/415 A23L1/0522

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MACGREGOR E A ET AL: "Structural models of limit dextrinase inhibitors from barley" JOURNAL OF CEREAL SCIENCE, vol. 31, no. 1, January 2000 (2000-01), pages 79-90, XP002297305 ISSN: 0733-5210 Y page 80, left-hand column, line 17 - line 23 page 85, right-hand column, last paragraph; figure 1 page 88, right-hand column, line 9 - line 29 ----- -/-	19-46
Y		1-18, 47-54

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the International search report

22 September 2004

08/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Loubradou, G

INTERNATIONAL SEARCH REPORT

Int'l Application No
PCT/GB2004/002583

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LAZARO A ET AL: "SIGNAL PEPTIDE HOMOLOGY BETWEEN THE SWEET PROTEIN THAUMATIN II AND UNRELATED CEREAL ALPHA AMYLASE-TRYPSIN INHIBITORS" FEBS LETTERS, vol. 239, no. 1, 1988, pages 147-150, XP002297306 ISSN: 0014-5793 abstract; figure 1	19-46
Y	DINGES JASON R ET AL: "Mutational analysis of the pullulanase-type debranching enzyme of maize indicates multiple functions in starch metabolism." PLANT CELL, vol. 15, no. 3, March 2003 (2003-03), pages 666-680, XP002297307 ISSN: 1040-4651 the whole document	1-18, 47-54
Y	SLATTERY C J ET AL: "Engineering starch for increased quantity and quality" TRENDS IN PLANT SCIENCE, ELSEVIER SCIENCE, OXFORD, GB, vol. 5, no. 7, July 2000 (2000-07), pages 291-298, XP002241850 ISSN: 1360-1385 page 294, right-hand column, last paragraph; figure 1 page 296, left-hand column, paragraph 5	1-18, 47-54
Y	WO 98/50562 A (DU PONT ; BROGLIE KAREN E (US)) 12 November 1998 (1998-11-12) page 1, line 17 - line 24 page 1, line 37 - line 39 page 9, line 30 - line 33; example 3	1-18, 47-54
A	FUJITA NAOKO ET AL: "Antisense inhibition of isoamylase alters the structure of amylopectin and the physicochemical properties of starch in rice endosperm." PLANT AND CELL PHYSIOLOGY, vol. 44, no. 6, June 2003 (2003-06), pages 607-618, XP009036429 ISSN: 0032-0781 the whole document	
		-/-

INTERNATIONAL SEARCH REPORT

I 1st Application No
PCT/GB2004/002583

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JAMES M G ET AL: "CHARACTERIZATION OF THE MAIZE GENE SUGARY1, A DETERMINANT OF STARCHCOMPOSITION IN KERNELS" PLANT CELL, AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS, ROCKVILLE, MD, US, vol. 7, 1 April 1995 (1995-04-01), pages 417-429, XP002033602 ISSN: 1040-4651 the whole document	
A	WO 02/101059 A (BAYER CROPSCIENCE GMBH) 19 December 2002 (2002-12-19) the whole document	
A	WO 03/014365 A (GEMSTAR CAMBRIDGE LTD) 20 February 2003 (2003-02-20) the whole document	
A	WO 03/035874 A (GEMSTAR CAMBRIDGE LTD) 1 May 2003 (2003-05-01) the whole document	
P,A	MACGREGOR E A: "The proteinaceous inhibitor of limit dextrinase in barley and malt" BIOCHIMICA ET BIOPHYSICA ACTA, vol. 1696, no. 2, 12 February 2004 (2004-02-12), pages 165-170, XP004489005 the whole document	
T	STAHL YVONNE ET AL: "Antisense downregulation of the barley limit dextrinase inhibitor modulates starch granule size distribution, starch composition and amylopectin structure." THE PLANT JOURNAL : FOR CELL AND MOLECULAR BIOLOGY. AUG 2004, vol. 39, no. 4, August 2004 (2004-08), pages 599-611, XP002297308 ISSN: 0960-7412 page 606, right-hand column, last paragraph - page 607, left-hand column, paragraph 2	

INTERNATIONAL SEARCH REPORT

In
Application No
PCT/GB2004/002583

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
WO 9850562	A 12-11-1998	AU 7471798 A	BR 9815520 A	CA 2284688 A1	27-11-1998
		CN 1257544 T	EP 0981628 A1	HU 0001306 A2	31-07-2001
		ID 22673 A	WO 9850562 A1	US 6429358 B1	12-11-1998
					21-06-2000
					01-03-2000
					28-09-2000
					09-12-1999
					12-11-1998
					06-08-2002
WO 02101059	A 19-12-2002	CA 2465884 A1	WO 02101059 A2	US 2003126633 A1	19-12-2002
					19-12-2002
					03-07-2003
WO 03014365	A 20-02-2003	CA 2455200 A1	EP 1417322 A2	WO 03014365 A2	20-02-2003
		US 2003200564 A1			12-05-2004
					20-02-2003
					23-10-2003
WO 03035874	A 01-05-2003	CA 2463695 A1	EP 1440153 A1	WO 03035874 A1	01-05-2003
		US 2003177532 A1			28-07-2004
					01-05-2003
					18-09-2003